**Design & Technology**

**AQA A-Level** Logo

Description automatically generated with low confidence

**Paper and board printing processes**

**Materials required for questions**

* Pencil
* Rubber
* Calculator

**Instructions**

* Use black ink or ball-point pen
* Try answer all questions
* Use the space provided to answer questions
* Calculators can be used if necessary
* For the multiple choice questions, circle your answer

**Advice**

* Marks for each question are in brackets
* Read each question fully
* Try to answer every question
* Don’t spend too much time on one question

**Good luck!**

**Q1.** What are the four colours used in offset lithography printing?

**A** Cyan, red, yellow and black

**B** Cyan, magenta, yellow and black

**C** Blue, magenta, yellow and black

**Q2.** When printing commercially, what is a registration mark used for?

**A** To check alignment of paper during print process

**B** To show where to cut paper after print

**C** To indicate that a registered trademark logo has been used

**Q3.** Which of the following is most suitable for batch process?

**A** Offset lithography

**B** Flexography

**C** Screen printing

**Q4.** Offset lithography is a process used in which scale of production?

**A** Mass production

**B** Continuous production

**C** Batch production

**Q5.** Evaluate the suitability of producing vehicle signage using a digital printed image **(4 marks)**

**Q6**. Explain the screen printing process. Include both notes and sketches in your answer **(5 marks)**

**Q7**. Explain two advantages of flexographic printing **(2 marks)**

**Answers**

**Q1**. B

**Q2**. A

**Q3**. C

**Q4**. A

**Q5.**

Digital printed image

* Full colour digital images or photographs can be printed on to a substrate before application allowing for corporate logos and pictures to be featured.
* Large format prints can be created and scaled for a variety of sized vehicles.
* One large self-adhesive feature is easier to apply and ensure that it is square and in line with the vehicle panel.
* Digital printing requires costly machinery which can make the process prohibitive for smaller companies.
* Digital printing has limited UV resistance so may fade quickly and lose its visual impact.

**Q6.**

An outline covering five of the following:

* Material to be printed placed on base (1)
* Template made from card with required design placed on top of material (1)
* Screen placed on top of template, made from stretch nylon fabric and wood frame (1)
* Ink squeezed onto nylon fabric (1)
* Rubber blade spreads ink out and push through fabric and template onto material (1)
* Printed pattern can now be seen on material (1)

**Q7.**

Any two from:

* Economic on long print runs (1)
* Fast (1)
* Low maintenance cost, low breakdown rate (1)
* Can be combined with web-fed systems which is much cheaper and faster than sheet fed (1)
* Fast drying inks (1)